

STANKIEWICZ, R.

"Allergic Diseases in Children and Their Treatment." (First
City Hospital in Warsaw.)

SO: Ped. Polska, Vol. 28, (1953), No. 10, pp. 1040-1044.

STANKIEWICZ, Remigiusz (Warszawa, ul. Kielecka 27)

Observations on pathogenesis and prognosis of epidemic diarrheas
in children. Polski tygod. lek. 9 no.21:646-650 24 May 54.

1. Z Miejskiego Szpitala Dla Dzieci Nr 1 w Warszawie, dyrektor
prof. dr med. Stankiewicz.
(INFANT NUTRITION DISORDERS.)

STANKIEWICZ, Remigiusz

Diagnostic difficulties in typhoid fever and paratyphoid fever in infants. *Pediat.polska* 30 no.1:29-37 Jan 55.

1. Z Miejskiego Szpitala dla Dzieci Nr 1 w Warszawie Dyrektor;
prof. dr med. R.Stankiewicz. Adres: Warszawa, Kopernika 43.

(TYPHOID FEVER, in infant and child,
differ. diag. from paratyphoid fever)
(PARATYPHOID FEVERS, in infant and child,
differ diag. from paratyphoid fever)

STANKIEWICZ, Remigiusz

Staphylococcal septicemia with pulmonary complications in infants. Polski tygod. lek. 11 no.12:521-526 19 Mar 56.

1. Z Miejskiego Szpitala dla Dzieci Nr 1, w Warszawie; ul. Kopernika 43; dyrektor: prof. dr. med. R. Stankiewicz, Warszawa, Kielecka 27-1.

(SEPTICEMIA AND BACTEREMIA, in infant and child,
staph. septicemia with pulm. compl. in inf. (Pol))
(MICROCOCCAL INFECTIONS, in infant and child,
septicemia with pulm. compl. in inf. (Pol))
(LUNGS, diseases,
caused by staph. septicemia in inf. (Pol))

STANKIEWICZ, S.

"The Problem of Impregnating Wood for Building Purposes." p.209
(PRZEGLAD BUDOWLANY Vol. 25, no. 6, June 1953 Warszawa, Poland)

SO: Monthly List of East European Accessions, LC, Vol. 3, no. 5, May 1954/Uncl.

STANKIEWICZ, S.

Aids to strengthen braking and steering mechanisms. Pt. 1. (To be contd.)
p. 165. (TECHNIKA MOTORYZACYJNA, Vol. 4, No. 6, June 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec.
1954, Uncl.

STANKIEWICZ, S.

Aids to strengthen braking and steering mechanisms. Pt. 2. (Conclusion) p. 219.
(TECHNIKA MOTORYZACYJNA, Vol. 4, No. 7, July 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec.
1954, Uncl.

STANKIEWICZ, Stefan

POLAND

KARCZEWSKI, Leszek; ANDRUSZKIEWICZ, Romuald; STANKIEWICZ, Stefan

Industrial Instytut of Electronics (Przemyslowy Instytut
Elektroniki)

Warsaw, Przegląd elektroniki, No 8, August 63, pp 462-63.

"Preparation of Extreme-Purity Sb_2S_3 "

3

STANKIEWICZ, Stefan

POLAND

KARCZEWSKI, Leszek; STANKIEWICZ, Stefan

Industrial Institute of Electronics (Przemyslowy Instytut Elektroniki)

Warsaw, Przegląd elektroniki, No 8, August 63, pp 476-77.

"Preparation of PbS Thin Layers and Powders by Chemical Methods".

STANKIEWICZ, Stefan, mgr (Wroclaw); HUBERT, Jerzy, mgr (Krakow)

Land's experiments and their repercussions. Problemy 20 no.
5:299-300 '64

H-25
19689

COUNTRY: : Poland
CATEGORY :
ABS. JOUR. : RZKhim., No. 5 1960, No.
AUTHOR : Stankiewicz, W.
INST. : Not given
TITLE : The Reconstruction of the Sugar Factory in Scettin
ORIG. PUB. : Gaz Cukrown, 61, No 4, 114-118 (1959)
ABSTRACT : The aim of the reconstruction is the expansion of capacity and the replacement of obsolete equipment. A list of plans and completed projects is given and the organization of the work and problems encountered are described.
D. Bronshteyn

CARD: 1/1

KOTARBA, Cecylia; MARKIEWICZ, Zofia; MARKIEWICZ, Kazimierz;
STANKIEWICZ, Wladyslaw (Warszawa)

Application of piperazine in worming dogs and swine. Wiadomosci
parazyt., Warsz. 2 no.5 Suppl:145-147.1956..

1. Klinika Chorob Wewnetrznych Wydz. Wet. SGGW.
(PIPERAZINES, therapeutic use,
worming dogs & swine (Pol))
(SWINE, diseases,
helminth infect., piperazine ther. (Pol))
(DOGS, diseases,
same)

POLAND/Diseases of Farm Animals. Diseases Caused by Viruses and Rickettsiae. R

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40655.

Author : Markiewicz, K., Stankiewicz, W.

Title : Therapy Methods in Dog Pest.

Orig Pub: Woiskowy przegl. weteryn., 1956, 27, No 3, 20-29.

Abstract: In the early stages of dog pest the most effective therapeutic methods are hypodermic, intravenous and intraperitoneal injections with specific antiserum. If it is administered during the first few days it can check the disease. The effect of the serum is supported by sulfamides, penicillin or streptomycin, which, although they have no effect on the virus itself, successfully prevent bacterial complications. However,

Card : 1/4

Card : 2/4

POLAND/Diseases of Farm Animals. Diseases Caused by
Viruses and Rickettsiae.

R

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40655.

drained off. Sometimes, the puncture itself and the draining of six to ten ml of spinal fluid brought temporary and even permanent relief in some cases. An experimental intraspinal injection of three to five ml antipest serum was given to 10 dogs. This caused a very violent reaction in all of the dogs, with intensification of the nervous syndrome. Experimental spinal injections of penicillin and sulfamides resulted in the death of the animals. Good therapeutic results were attained when two dogs with the nervous syndrome of the disease were treated by the Ulrich method which uses simultaneous hypodermic injections of luminal and snake poison. Both dogs recovered. Ulrich also recommends hypodermic

Card : 3/4

Stankiewicz, W.

POLAND/Diseases of Farm Animals. Noncontagious Diseases.

Abs Jour: Ref Zhur-Biol., No 12, 1958, 54923.

Author : Markiewicz, Z., Stankiewicz, W.

Inst :

Title : Cases of Hemorrhagic Thrombocytopenia in Dogs.

Orig Pub: Med. weteryn., 1957, 13, No 2, 102-105.

Abstract: No abstract.

Card : 1/1

STANKIEWICZ, Wladyslaw; MARKIEWICZ, Zofia; PIETRASZEK, Andrzej

Intestinal helminthiases in clinically normal and sick dogs in Warsaw.
Wiadomosci parazyt., Warsz. 4 no.5-6:577-578; Engl. transl. 578-579 1958.

1. Z Kliniki Chor. Wewn. Wydz. Wet. SGGW w Warszawie.

(DOGS, dis.:

helminth infect. (Pol))

(HELMINTH INFECTIONS, epidemiol.

in dogs (Pol))

MARKIEWICZ, Kazimierz; STANKIEWICZ, Wladyslaw

Attempted fuanin therapy of demodicidosis in dogs. Wiadomosci parazyt.,
Warsz. 4 no.5-6:607-608; Engl. transl. 608-609 1958.

1. Z Kliniki Chor. Wewn. Wydz. Wet. SGGW w Warszawie.
 - (ACARIASIS, therapy,
demodicidosis, fuanin in dogs (Pol))
 - (ANTIMONY, ther. use,
fuanin in demodicidosis in dogs (Pol))
 - (DOGS, dis.
demodicidosis, fuanin ther. (Pol))

STANKIEWICZ, W.; MARKIEWICZOWA, Z.; MARKIEWICZ, K.(Warszawa)

Research on the application of autohemolysates in cases of allergic
skin diseases of dogs. Rocznik wet 70 no.1/4:84-86 '60.
(EEAI 10:9)

(Dogs) (Skin) (Hemolysis and hemolysins)

MARKIEWICZ, K.; MARKIEWICZOWA, Z.; STANKIEWICZ, W. (Warszawa)

Research on the applicability of heterospecific blood transfusions
for animals. Roczniki nauki rolniczej 70 no.1/4:86-88 '60.
(EEAI 10:9)

(Animals) (Blood)

92
STANKIEWICZ, Wladyslaw
SURNAME (in caps); Given Names

Country: Poland

Academic Degrees: Docent dr

Director of Department of Diseases of Small Animals,
Affiliation: Veterinary Division, Central School of Agriculture (SGGW -
Szkola Glowna Gospodarki Wiejskiej), Warsaw

Source: Warsaw, Medycyna Weterynaryjna, No 4, April 1961, pp 241-242.

Data: "A Convenient Method of Collecting Blood from Small Animals."

Co-author:

KONARSKA, Aleksandra

STANKIEWICZ, W.
SURNAME, Given Names

Country: Poland

Academic Degrees:

Affiliation:

Source: Warsaw, Medycyna Weterynaryjna, Vol XVII, No 7, July 1961, pp 391-395.

Data: "An Attempt to Determine a Haematological Index for Horses in the Right-bank Powiats of the Warsaw Wojewodztwo."

Authors:
STANKIEWICZ, W., Docent dr., Director of the Department of Small Animal Diseases (Zaklad Chorob Zwierzat Malych), Veterinary Division (Wydzial Weterynarii), Central School of Agriculture (SGGW--Szkoła Glowna Gospodarki Wiejskiej), Warsaw.
CZAPLICKA-GRUSZEWSKA, H., Laboratory of Stables for the Production of Sera and Vaccines (Laboratorium Stajen Wytworni Surowic i Szczepionek, /presumed/ Warsaw; Director: A. TABORSKI, Lek. wet.

870 981643

STANKIEWICZ, Zofia; MIJAL, Kazimiera; MAJEWSKA, Barbara

Evaluation of nutrition on one of the state farms in
Lublin Voivodeship. Roczni panstw zakl hig 14 no.5:453-460
'63.

1. Laboratory of Nutrition Hygiene, Institute of Occupational
Medicine and Rural Hygiene, Lublin.

STANKIEWICZ-MICHNIEWICZ, Eugenia; JAKUBOWSKA, Krystyna

Dysostosis enchondralis in a 12-year-old child. Reumatologia
(Warsz.) 2 no.4:371-375 '64

1. Z. Kliniki Pediatricznej Studium Doskonalenia Lekarzy Akademii
Medycznej i Instytutu Reumatologicznego w Warszawie (Kierownik:
prof. dr. med. E. Wilkoszewski) i z Zakładu Radiologii Instytutu
Reumatologicznego w Warszawie (Kierownik: doc. dr. med.
J. Zabokrzycki; Dyrektor Instytutu: dr. med. W. Bruhl).

STANKIEWICZ-MUSIEROWICZ, Zofia; JAWORSKA, Anna; LIMBURKSA, Krystyna

A case of dermoid cyst of the tongue diagnosed by means of
fistulography. Czas. stomat. 18 no.3:245-249 Mr'65.

1. Z Kliniki Chirurgii Stomatologicznej Slaskiej Akademii
Medycznej w Zabrze, (Kierownik: prof. dr. M. Jankowski).

STANKIYEVICH, A.

A simplified method of making photometrographs. Biul astr Cs
14 no.3:104-106 '63.

1. Astronomicheskiy institut, Vroslaw.

L 32206-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/GS

ACCESSION NR: AT5005416

S/0000/64/000/001/0027/0027

AUTHOR: Manovets, L. M.; Stanko, A. A.

TITLE: Possible use of indium arsenide Hall-effect sensors as power conversion meters

SOURCE: Nauchnaya konferentsiya molodykh uchenykh Moldavii, 3d. Trudy, no. 1: Yestestvenno-tekhnicheskiye nauki (Natural and technical sciences). Kishinev, Gosizdat Kartya Moldovenyaske, 1964, 27

TOPIC TAGS: indium arsenide, power meter, Hall effect, power conversion, semiconductor sensor, indium phosphide

ABSTRACT: It is well known that Hall-effect sensors can be used for measuring the power of electrical currents. The materials of which such sensors are made must show a large Hall-effect coefficient and a low internal resistance. In addition, these parameters should be independent of temperature and magnetic field within the entire measuring range. Experimental analyses of the electrical properties of indium arsenide and its alloys with indium phosphide showed that they are fully compatible with the above-mentioned requirements. The errors did not exceed 1% in the entire working temperature region and the sensors proved stable over extend-

Card 1/2

L 32206-65

ACCESSION NR: AT5005416

ed periods of use.

ASSOCIATION: None

SUBMITTED: 07Feb64

ENCL: 00

SUB CODE: EC, IC

NO REF SOV: 000

OTHER: 000

Card 2/2

L 64549.65 EWT(m)/EWP(t)/EWP(b) LFP(c) JD/RH
 ACCESSION NR: AR5004577 S/0275/64/000/011/B029/B029
 621.382.61:621.317.38 13
 SOURCE: Ref. zh. Elektronika i yeye primeneniye. Svodnyy tom, Abs. 11B171 B
 AUTHOR: Manovets, L. M.; Stanko, A. A.
 TITLE: Possibility of using the Hall indium-arsenide generators for power conversion
 for measurement purposes 21 21
 CITED SOURCE: Tr. 3-y konferentsii molodykh uchenykh Moldavii. Yestestv.-tekhn.
 n. Vyp 1. Kishinev, Kartya Moldovenyashke, 1964, 27
 TOPIC TAGS: Hall generator, measuring Hall generator
 TRANSLATION: Fundamental parameters of the Hall generators made from indium
 arsenide and its alloys with indium phosphide which are used for measuring
 electric power are described. The measurement error is about 1% within the entire
 working temperature range, and the stability of characteristic during a long-time
 operation has been good.
 SUB CODE: EC ENCL: 00
 Card 1/1 *mlb*

L 43093-66 ENT(m)/T/EWP(t)/ETI IJP(c) JD/WB

ACC NR: AR60L4384 (A,N) SOURCE CODE: UR/0137/66/000/011/I057/I057

AUTHORS: Petrov, Yu. N.; Mamontov, Ye. A.; Parsadanyan, A. S.; Vyrlan, A. I.;
Stanko, A. A.; Kalmutskiy, V. S.

TITLE: Influence of thermal treatment on the electrode potential of steel

SOURCE: Ref. zh. Metallurgiya, Abs. 11I396

REF SOURCE: Sb. Materialy dokl. 1-y Nauchno-tekhn. konferentsii Kishinevsk.
politekhn. in-ta k Kishinev, 1965, 86-87

TOPIC TAGS: steel, carbon steel, electrode potential / St 45 steel

ABSTRACT: On the basis of comparison of the magnitude of stationary potentials of quenched and nonquenched specimens in a working electrolyte of iron-plating solution and 30% sulfuric acid solution, it is concluded that potentials of the quenched specimens are more positive than those of the nonquenched specimens. The behavior of specimens (St 45 quenched) during anodic treatment in 30% sulfuric acid solution shows that the more intensive passivation occurs for quenched specimens. The change of the stationary potentials of quenched carbon steel towards electropositive values is explained by the presence of residual

Card 1/2

UDC: 669.14.018.26:621.78

L 43093-66

ACC NR: AR60L4384

austenite.. Experience in the application of the iron-plating process shows that obtaining a strong durable surface on quenched parts is associated with greater difficulties as compared with nonquenched parts. I. Tulupova [Trans-lation of abstract]

SUB CODE: 11

Card 2/2 MLP

L 34101-66
ACC NR: AP6008709

EWT(m)/EWP(j)

WW/JW/JWD/RM

SOURCE CODE: UR/0079/65/035/011/2003/2006

AUTHOR: Stanko, V. I.; Bobrov, A. V.

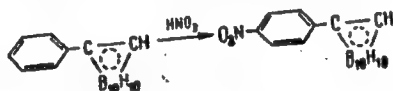
ORG: none

TITLE: Nitration of phenylbarene

SOURCE: Zhurnal obshchey khimii, v. 35, no. 11, 1965, 2003-2006

TOPIC TAGS: organoboron compound, nitration

ABSTRACT: The nitration of phenylbarene with 100% nitric acid and a nitrating mixture of 57% HNO₃ and conc. H₂SO₄ was studied. Analysis of the reaction products showed that independently of the nitrating agent, the main product is p-nitrophenylbarene together with a mononitro derivative of phenylbarene, apparently, phenylnitrobarene.



UDC: 546.271:958.1

Card 1/2

L 34101-66

ACC NR: AP6008709

The structure of p-nitrophenylbarene was demonstrated by the method of combined oxidation of the nitration product and IR and Raman spectra. The amount of the second product was too small to permit identification of its structure. IR spectra of the mixture of the nitro compounds, p-nitrophenylbarene and phenylbarene, and also Raman spectra of phenylbarene and of the mixture of its nitro derivatives were recorded, and the characteristic lines obtained are described. Orig. art. has: 3 figures.

SUB CODE: 07 / SUBM DATE: 23Dec64 / ORIG REF: 006 / OTH REF: 002

Card 2/2 mT

STAN'KO, D.G., kand.tekhn.nauk, dotsent

Evaluating losses in conjugate tooth profiles. Trudy Frunz.
politekh.inst. no. 6:117-132 '62.

Determining mechanical efficiency in transmissions. Ibid.:133-139
(MIRA 17:9)

RUMYANTSEV, B.P., dots., otv. red.; GULIDA, E.N., red.; KARTASHOV,
I.N., prof., red.; KIRILLOV, Yu.G., dots., red.;
MOGIL'NIY, N.I., dots., red.; SEVRYUK, V.N., dots., red.;
STAN'KO, D.G., dots., red.; TSOY, N.G., dots., red.;
KHLUS, A.A., dots., red.; POLUBICHKO, B.V., red.

[Problems of locomotive manufacture, technology of machine
manufacture and founding] Voprosy lokomotivostroeniia,
tekhnologii mashinostroeniia i liteinogo proizvodstva.
L'vov, Izd-vo L'vovskogo univ., 1964. 126 p. (MIRA 17:10)

1. Lugansk. Mashinostroitel'nyy institut.

Z/011/61/018/001/008/014
E112/E453

AUTHORS: Bogatyrev, P.M., Stan'ko, N.G. and Golda, N.M.

TITLE: Study of side-reactions during the synthesis of alkyd resins

PERIODICAL: *Chemie a chemicka technologia*, 1961, Vol.18, No.1, p.32, abstract CH 61-441 (Lakokras. Materialy, 1960, No.1, pp.6-13)

TEXT: Most important side-reactions are: polymerization of double-bonds of the fatty acids, formation of polyglycerides and their esters, and pyrolysis of glycerole esters. Resin FPV-2, which is a glyptal resin modified by acids of sunflower-seed oil, was taken as model substance. It was established that if oils are used for the synthesis, polyglyceroles and polyglycerides are formed not only during alcoholysis but also on esterification. The pyrolysis of the glycerole esters is affected by temperature, duration of esterification and reaction medium, and leads to losses of phthalic anhydride. 4 diagrams, 6 tables, 20 literature references.

[Abstractor's note: Complete translation.]

Card 1/1

STANKO, ROZGAJ

✓ Calculation of technological data of industrial sieves.

Rozgaj Stanko. *Technika Pregled* 7, 133-8(1955).—

Several formulas are derived correlating the capacity of a vibration sieve, its surface area, mesh size, and particle size of material to be sieved.

N. Plavšić

YUGOSLAVIA / Chemical Technology, Chemical Products H
and Their Application, Part 2. - Ceramics,
Glass, Binders, Concretes. - General Topics.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61650.

Author : Stanko Rozgaj.
Inst : Not given.
Title : Upon the Purification of Baryte Raw Materials
in Yugoslavia.

Orig Pub: Tehn. pregl., 1957, 9, No 4, 142 - 147.

Abstract: No abstract.

Card 1/1

26

STANKO, S.A.

~~Adaptability of plants and some invertebrates to low temperatures.~~
Vest. AN Kazakh SSR 11 no.3:85-88 Mr '55. (MIRA 8:6)

1. Predstavleno chlenom-korrespondentom AN SSSR G.A.Tikhovym.
(Adaptation (Biology)) (Acclimatization (Plants))

Stanko, S.A.

USSR/Biology - Adaptability

Card 1/1 Pub. 123 - 9/13

Authors : Stanko, S. A.

Title : ~~Adaptability of plants and invertebrates to low temperatures~~
Adaptability of plants and invertebrates to low temperatures

Periodical : Vest. AN Kaz. SSR 120/3. 85-89. Mar 1955

Abstract : Results of a study which was conducted to determine the adaptability of plants to low temperatures are presented. Various plants originating from high altitudes in the Carpatian mountains were studied. Daily variations in temperature, in the presence of snow, from $+4.7^{\circ}\text{C}$ to -15.3°C did not appreciably affect the plants. (Transl. note: the text does not mention the invertebrates.) Five USSR references (1949-1953). Table.

Institution :

Presented by : Member-Correspondent of the Acad. of Sc., USSR, G.A. Tikhov

STANKO, S. A.

med ✓ A regulating role of anthocyanins (pigments of plant juice) in the opening of stomata of plant leaves. S. A. Stanko. *Vestnik Akad. Nauk Kazakh. S.S.R.* 12, No. 8, 102-9 (1956).—Examn. of a variety of Kazakhstan plants showed that plants which contain anthocyanins retain in their protein-lipide complex some 33-51% H_2O , while plants devoid of anthocyanins retain but 20-44% H_2O . The former show some 135% more intense photosynthesis than the latter plants. Thus the anthocyanin-bearing plants despite more intense transpiration can withstand dry seasons better.
G. M. Kosolapoff

STANKO, S. A.

I-1

USSR/Plant Physiology - Photosynthesis.

Abs Jour : Ref Zhur - Biol., No 5, 1958, 19910

Author : Dadykin, V.P., Stanko, S.A.

Inst

: - YAKUT AFFH

Title

: External Conditions and the Assimilation of Light by Plants.

Orig Pub : Izv. vost. fil. AN SSSR, 1957, No 1, 109-120

Abstract : By the method of relative spectrophotometry using a field quartz spectrograph of Tikhov construction, the reflection and filtration spectra of plants were studied. In vegetation experiments on Yakutyanka wheat, tomatoes, corn, cucumbers and onions during the period of ontogenesis at the same air temperature (20-25) an increased in the soil temperature from -4 to +20 degrees induced an increase in the reflection and filtration of light, and a decrease in its absorption.

Card 1/2

USSR/Plant Physiology. Photosynthesis

I

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58191

Author : Stanko S. A.
Inst : Section of Astrobotany, Academy of Sciences
Kazakh SSR

Title : Study of the Pigments of Antocyanins in Monochromatic Rays

Orig Pub : Tr. Sektoraatrobotan., AN Kaz SSR, 1957, 5,
149-161

Abstract : The absorption and penetration of antocyanins and chlorophyll by the leaves of *Gentiana asclepiadea*, *Homogone alpina* Coss, *Soldanella hungarica* Simk., *Rumex alpinus* L., and *Hieracium carpathicum* Bess., growing in Transcarpathian mountains (2054 meters above sea level) and in the valley (110 meters above sea level) were determined by means of spectrophotometry of aqueous

Card 1/3

9

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001652910004-3"

USSR/Plant Physiology. Photosynthesis

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58191

Abstract : extracts or undestroyed leaves. The valley plants contained 13 to 19% more chlorophyll than the mountain plants in which the insufficiency of chlorophyll was compensated by antocyanins. The maximums of permeability of the plants under investigation were in the same area, but depending on the concentration of the pigment, differed by the depth of the profile. Antocyanins shaded the main strip of chlorophyll absorption in the area of 660 to 690 mμ, for they absorbed the blue-violet (410-470 mμ), green-yellow (525-540), orange (580-600), and also the short infra-red rays. The main maximum of absorption in aqueous solutions was at λ = 510-525 mμ, and the compensatory at 250-285, 200-210 (ultra-violet area), 625-645 (orange), and 710-720, 840-840 mμ (infra-red area). The data which were

Card 2/3

USSR/PLANT PHYSIOLOGY. 1958, 58192

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58192

Author : ~~Stanko S. A.~~
Inst : Section of Astrobotany, Academy of Sciences
Kazakh SSR
Title : Characteristic of the passing of Sun Energy by
Plant Leaves, Depending on the Coloration of
their Flowers

Orig Pub : Tr. Sektora astrobotan., AN Kaz SSR, 1957, 5,
162-173

Abstract : The passage of sun energy in short waves of 365
to 1200m μ by the fifth from the top green lea-
ves of musk mallow (*Malva moshata* L.), Indian
canna (*Canna indica* L.), and dahlia (*Dahlia va-*
riabilis Desf.) with flowers of different colors
was determined with the help of the Yu. D. Yani-

Card 1/2

STANKO, S.A.

AUTHOR
TITLE

PERIODICAL
ABSTRACT

20-1-52/54
DADYKIN, V.P., STANKO, S.A., GORBUNOVA, G.S., and IGUMNOVA, Z.S.
Light Assimilation by Plants at Yakutsk and Tiksi
(Ob usvoyeni sveta rasteniyami v Yakutske i Tiksi. Russian)
Doklady Akademii Nauk SSSR, 1957, Vol 115, Nr 1, pp 190-192 (U.S.S.R.)

The idea of "optic assimilation" of plants of K.A. Timiryazev which was proved and developed especially by austrobotany, served as a starting point for the organization and realization of the research work on the optic characteristics of plants growing under different temperature conditions of air and soil. The experimental areas were at Yakutsk (62° North lat.) and Tiksi (71,6° North lat.). The weather conditions are mentioned in table 1. The optical characteristics of the plants were found by means of the method of relative spectrophotometry using a quartz-spectrograph (Tikhov) with a resolving power of 1 : 20 and a linear dispersion in the area of K and H of 11,3 M/mm. The spectrographic work was carried out under natural conditions of growth with cloudless sky, at the moment of the highest position of the sun and with the exposure of 10 seconds. Fig. 1 shows all 3 reflection-, penetration- and absorption curves of solar energy through radies plants. The reflection curve at Yakutsk is higher than that of Tiksi. The energy reflection here is higher because of more favourable temperature conditions. An exception is formed by a narrow band of the

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Light Assimilation by Plants at Yakutsk and Tiksi 20-1-52/54

spectrum in the λ 660 μ m zone where the reflection magnitude of Tiksi is greater than that of Yakutsk. Also the penetration curve through the leaves is in almost any part higher than that of Tiksi. The greatest difference is to be found in the section of long ultraviolet, green, yellow and orangecolored rays. An exception is the narrow band of red rays (650 - 660 μ m) where the penetration in Tiksi was greater than that of Yakutsk. The most interesting picture is demonstrated in the case of a comparison of the absorption of radiation energy. Almost over the whole wavediapason the plants of Yakutsk absorb remarkably less solar energy than those of Tiksi. The latter absorb 70 - 80 % even in the green part of the spectrum. The red-orange-yellow part is absorbed up to from 80 - 90 %. Especially significant is the absorption of the far red rays and of near infrared radiation which is classified as abiotic. Most essential seems the remarkably greater total absorption of solar ray energy by the plants of Tiksi compared with those of Yakutsk. It proves a better utilization by plants growing under hard temperature conditions of air and soil. It seems probable that the reformation of bio-chemical processes in the internal part of the plants occurring under the influence of low outer temperature and accompanied by a change of the

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20-1-52/54

Light Assimilation by Plants at Yakutsk and Tiksi

pigment apparatus makes a complete utilization of solar energy possible. It may be that it is just this energy of the plants that makes possible the water absorption together with nutrition from a soil with very low temperature. Also the assimilation activity of the same plants was found. The daily production of dry substance was 1.5 times greater in the case of the Tiksi plants than in the case of Yakutsk plants. Goncharik calls this "intensity of light nutrition" in the case of potatoes and cabbage. The spectrographic method made possible to interpret this intensity and to determine a complete utilization of sun rays by the plants of the high North, among it of the infrared part. (1 illustration, 2 tables and 5 Slavic references).

ASSOCIATION	Yakutsk Branch of the Academy of Sciences of the U.S.S.R. (Yakutskiy filial Akademii nauk SSSR)
PRESENTED BY	KURSANOV, A.L., Academician, April 29, 1957
SUBMITTED	10.12.1956
AVAILABLE	Library of Congress

Card 3/3

SOV/35-59-10-8148

Translation from: Referativnyy zhurnal. Astronomiya i Geodeziya, 1959, Nr 10, p 73

AUTHOR: Stanko, S.A.

TITLE: On the Effect of the Reflection Spectrum of the Martian Soil on the Reflection Spectrum of Its Vegetation

PERIODICAL: Tr. Sektora astrobotan. AS KazSSR, 1958, Vol 6, pp 55-64

ABSTRACT: In order to interpret the spectrophotometric observations of Martian seas, on the assumption that their surface is covered by sparse vegetation, the spectra of terrestrial vegetation and soils of the Turkmenian deserts were studied. The observations were carried out using a field quartz spectrograph with an aperture ratio of 0.05 and a linear dispersion of 11, 34 and 43 m μ /mm for 400, 600 and 800 m μ , respectively. The NIKFI plates, the "Paninfra" and "Infra" were used which permitted one to obtain the spectral brightness of objects in a range of 300 - 750 m μ . The coefficients of the spectral brightness were determined by comparisons with the standard gypsum screen. The photography of vegetation covers (7 objects) was made from the side (in this case the plants formed a continuous green screen), and from above (when the reflection from the soil was added to the reflection from

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SOV/35-59-10-8148

On the Effect of the Reflection Spectrum of the Martian Soil on the Reflection Spectrum of Its Vegetation

the plants). From above also zones devoid of vegetation were spectrographed in order to obtain reflections from the soil. A detailed account of the characteristic of the studied objects, plants and soils, is given, as well as information about the daily variation of the temperature and humidity of the air in the areas where the observations took place. Results are given in the form of graphs which show the change of the brightness coefficient versus the wavelength, while observing plants from the side and from above and the soil from above. Certain conformities are pointed out between the obtained results with the results of the spectrophotometric observations of Mars by N.A. Kozyrev (RZhAstr, 1956, Nr 4, 2709). Big differences are revealed of the reflection properties of the same plant, while it is being spectrally photographed from above and from the side, produced by reflections from the soil. The curves obtained from above, hardly show the main line of chlorophyll absorption in the reflected rays, which is clearly marked when photographed from the side. The curves obtained from the side show a considerably larger reflection in the extreme red rays, than do the curves from above. This signifies that the profile of chlorophyll absorption band in Martian vegetation is dependent on both the Martian climate and the superposition of the spectrum of reflection.

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SOV/35-59-10-8148

On the Effect of the Reflection Spectrum of the Martian Soil on the Reflection Spectrum of Its Vegetation

of soil. The author considers the attempt made by N.A. Kozyrev as being inadequate to explain the resemblance of the spectral curves of seas and of continents on Mars by the properties of its atmosphere. Bibl. 14 titles.

N.S. Orlova

Card 3/3

STANKO, S.A.; BEDEENKO, V.P.; IEBOGATIKOVA, M.S.

Utilization of radiation energy by plants in relation to the
vertical zonation. Trudy Sekt.astrobot. AN Kazakh.SSR 6:141-157
' 58. (MIRA 11:12)

(Photosynthesis)

SHAKHOV, A.A.; STANKO, S.A.; KOROVIN, A.I.

Ecological characteristics of light assimilation by plants in
the North. Izv.Kar.i Kol'.fil.AN SSSR no.4:54-67 '59.
(MIRA 13:5)

1. Institut fiziologii rasteniy AN SSSR i Institut biologii
Karel'skogo filiala AN SSSR.
(Plants, Effect of light on)
(Plants, Effect of temperature on)

STANKO, S.A.

Seasonal changes in the reflection of light by conifer needles
in a permafrost zone. Trudy Sekt.astrobot.AN Kazakh SSR 7:
166-178 '59. (MIRA 13:5)
(Coniferae--Optical properties) (Frozen ground)

SHAKHOV, A.A.; STANKO, S.A.; KHAZANOV, V.S.; D'TAKONOV, F.S.

Spectral characteristics of plants. Bot.zhur. 44 no.12:1681-1693
D '59. (MIRA 13:4)

1. Institut fiziologii rasteniy AN SSSR, i Vsesoyuznyy nauchno-
issledovatel'skiy svetotekhnicheskiy institut, Moskva.
(Arctic regions--Leaves--Optical properties)

SHAKHOV, A.A.; KHAZANOV, V.S.; STANKO, S.A.

The true spectral properties of plants. Bot. zhur. 46 no. 2:222-233 F '61. (MIRA 14:2)

1. Institut fiziologii rasteniy im. K.A. Timiryazeva Akademii nauk SSSR i Vsesoyuznyy nauchno-issledovatel'skiy svetotekhnicheskii institut, Moskva.

(Leaves—Optical properties)

SHAKHOV, A.A.; STANKO, S.A.; KHAZANOV, V.S.

Role of the photoadaptation and photoreactivation of plants in:
space flight. Probl.kosm.biol. 2:340-353 '62. (MIRA 16:4)
(PLANTS, EFFECT OF LIGHT ON)
(LIFE SUPPORT SYSTEMS (SPACE FLIGHT))

FEDOROVA, L.L.; SHAYDUROV, V.S.; STANKO, S.A.

Efficiency of the action of a herbicide mixture in forage cabbage plantations. Fiziol. rast. 9 no.6:735-737 '62. (MIRA 15:12)

1. Polar Experimental Station of All-Union Institute of Plant Growing, Maibiny and K.A. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow.
(Murmansk Province--Cabbage)
(Herbicides)

SHAKHOV, A.A.; KHAZANOV, V.S.; STANKO, S.A.; OSTAPOVICH, L.F.

Photoadaptation and photoreactivation of plants in the mountains
Bot.zhur. 47 no.1:68-78 Ja '62. (MIRA 15:2)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva AN SSSR .
Moskva, Vsesoyuznyy nauchno-issledovatel'skiy svetotekhnicheskiy
institut, Moskva i Pamirskiy botanicheskiy sad AN Tadzhikskoy SSR,
g. Khorog.

(Pamirs--Plants, Effect of light on)

... of ... in plants in the ...
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(S) (S)

TANKO, S.A.

Effect of light on the formation and composition of anthocyanins
in potato tubers during vernalization. Dokl. AN SSSR 146 no.2:480-
483 S '62. (MIRA 15:9)

1. Institut fiziologii rasteniy im. K.A. Timiryazeva AN SSSR.
Predstavleno akademikom A.L. Kursanovym.

(Plants, Effect of light on) (Anthocyanin)

STANKO, S.A.; BARDINSKAYA, M.S. [deceased]

Anthocyanins of callus tissues in *Parthenocissus*
tricuspidata. Dokl. AN SSSR 145 no. 4: 956-959
0 '62. (MIRA 15:11)

1. Institut fiziologii rasteniy im. K.A. Timiryazeva
AN SSSR. Predstavleno akademikom A.L. Kursanovym.
(Anthocyanin) (Plants--Metabolism)

FEDOROVA, L.L.; SHAYDUROV, V.S.; STANKO, S.A.

Herbicides for cabbage fields. Zashch. rast. ot vred. i bol.
8 no.4:54 Ap '63. (MIRA 16:10)

1. Polyarnaya opytnaya stantsiya Vsesoyuznogo instituta rasteni-
yevodstva i Institut fiziologii rasteniy imeni K.A. Timiryazeva
AN SSSR.

(Murmansk Province--Cabbage)
(Murmansk Province--Weed control)

SHAKHOV, A.A.; STANKO, S.A.; NARINYAN, S.G.

Effect of the solar radiation on Mount Aragats on the spectral properties of plants. Dokl. AN Arm. SSR 36 no.1:45-49 '63.

(MIRA 17:1)

1. Institut fiziologii rasteniy imeni K.A. Timiryazeva AN SSSR i Botanicheskiy institut AN Armyanskoy SSR. Predstavleno akademikom AN Armyanskoy SSR G.Kh. Bunyatyanom.

STANKO, S.A.; ZAKMAN, L.M.

Physiological significance of anthocyanins in plants.
Bot. zhur. 49 no.3:372-381 Mr '64. (MIRA 17:3)

1. Institut fiziologii rasteniy AN SSSR, Moskva i Polyarno-
al'piyskiy botanicheskiy sad, Kirovsk.

ACCESSION NR: AP4040965

S/0020/64/156/005/1232/1235

AUTHOR: Stanko, S. A.

TITLE: Effects of prematched irradiation of tuber potatoes with white and monochromatic concentrated sunlight upon the synthesis and composition of anthocyanins, growth of chlorophyll and harvest

SOURCE: AN SSSR. Doklady*, v. 156, no. 5, 1964, 1232-1235

TOPIC TAGS: plant physiology, biology, organism function, photosynthesis, sunlight, anthocyanine, vernalization, tuber, potato irradiation

ABSTRACT: This is a continuation of a previous work by the author in which he showed that the intensity and quality of light during the vernalization of tuber potatoes have a decisive effect upon the quantity and composition of anthocyanines (DAN, 146 (1962), 480). The present work is a study of the effects of a short-lived irradiation of a tuber with concentrated prematched white and monochromatic sunlight upon the synthesis and anthocyanine concentration and the consequences of this irradiation upon the growth of chlorophyll, quantity of plastid pigments and size and quality of the potato crop. Findings show that while and monochromatic irradiation have different effects upon crop and quality.

Card 1/2

SHAKHOV, A.A.; KHAZANOV, V.S.; STANKO, S.A.

Spectral light absorption capacity of the leaves of tree crowns.
Fiziol.rast. 12 no.1:22-26 Ja-F '65. (MIRA 18:3)

1. Institut fiziologii rasteniy imeni Timiryazeva AN SSSR, Moskva
i Vsesoyuznyy nauchno-issledovatel'skiy svetotekhnicheskii institut,
Moskva.

SHAKHOV, A.A.; SHISHCHENKO, S.V.; STANKO, S.A.; SHAYDUROV, V.S.;
GOLUBEKOVA, B.M.

Ultraviolet irradiation of plants as a problem of space phyto-
physiology. Probl. kosm. biol. 4:474-486 '65. (MIRA 18:9)

SHAKHOV, A.A.; BIDZEIYA, N.I.; STANKO, S.A.; NABIULLIN, F.Kh.

Photoinduced EPR signals in seeds. Biofizika 10 no.4:
710-713 '65. (MIRA 18:8)

1. Institut fiziologii rasteniy im. K.A. Timiryazeva AN SSSR,
Moskva; Institut fiziologii rasteniy AN UkrSSR, Kiyev i
Vsesoyuznyy nauchno-issledovatel'skiy institut istochnikov
tokov, Moskva.

L 14296-66 EWT(1)/FS(v)-3 SCTB DD/RD SOURCE CODE: UR/2865/65/004/000/0474/0486
ACC NR: AT6003882

AUTHOR: Shakhov, A. A.; Shishchenko, S.V.; Stanko, S. A.; Shaydurov, V. S.; Golubkova, B. M. 40
③+1

ORG: none

TITLE: Ultraviolet ^{2, 44}irradiation of plants as a problem of space phytophysiology

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii,
v. 4, 1965, 474-486

TOPIC TAGS: plant physiology, UV irradiation, photosynthesis, space biologic
experiment, plant growth, radiation plant effect

ABSTRACT: The purpose of this review article, which includes results of many
experiments, is to explore some aspects of the influence of ultraviolet
radiation on photosynthesis, and to emphasize this area of investigation in
space biology. In the first group of experiments described, plants grown
under conditions of normal polar illumination were irradiated additionally
with ultraviolet and infrared light, in most cases simultaneously. Ultra-
violet irradiance ranged from 10-30 $\mu\text{w}/\text{cm}^2$. Electron microscopy of

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ACC NR: AT6003882

chloroplasts separated from these plants showed that shortwave UV-irradiation changes the submicroscopic structure of chloroplasts. But, owing to the photoreactivation capacity of plants, some recovery from injuries occurs. Thus chloroplasts of some plants are fairly resistant to artificial UV-irradiation during the polar day.

A second series of experiments was conducted at an altitude of 3200 m, where the level of natural ultraviolet radiation is higher than at sea level. When radishes were subjected to additional artificial UV-irradiation daily for 10 minutes (irradiance of 1700 erg/cm²), changes in chloroplast structure and pigment content were observed. Changes in the pigment content, determined by paper chromatography and spectrophotometry, depend on the ultraviolet wavelength, the duration of irradiation, stage of development of the plant, etc.

More study of the complex effects of UV-irradiation on plants is urgently needed. Preliminary studies by the authors showed that in chloroplasts of cabbage, beet, bean, turnip, and pea leaves, pigment content increased during short-term UV-irradiation, and decreased when the

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ACC NR: AT6003882

exposure was longer. Studies conducted at high altitude laboratories have established that when natural ultraviolet irradiance is high, absorption by leaves of radiant energy from ultraviolet and infrared rays increases. These data indicate that plants growing in extreme conditions (such as space-flight) use radiant energy in a wider spectral band for their vital activity. It has been observed that photosynthesis in wild alpine plants proceeds at normal levels or higher. This is one of the reasons to suspect that with sufficiently intense, around-the-clock illumination, plants in spaceflight conditions may not require protection from the entire ultraviolet spectrum.

Further research must be conducted on the use of parts of the ultraviolet spectrum to increase the resistance of plants to other cosmic radiation factors. Orig. art. has: 7 tables. [ATD PRESS: 4091-F]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 018 / OTH REF: 004

CC
Card 3/3

STANKO, V.; HASIK, A.

On the problem of local use of antibiotics in surgery. Bratisl. lek. listy 41 no.7:445-448 '61.

1. Z Stomatologickej kliniky Lek. fak. Univ. Komenskeho v Bratislave, prednosta doc. MUDr. S. Velgos, a z Katedry experimentalnej patologicie a farmakologic Lek. fak. Univ. Komenskeho v Bratislave, veduci prof. MUDr. G. Bardos[deceased]

(ANTIBIOTICS ther)

STANKO, V.

The influence of bacitracin on the regression of pain due to
inipient periostitis. Cesk. stomat. 65 no.3:184-189 My'65.

1. Stomatologicka klinika Lekarskej fakulty University Komen-
skeho v Bratislave (prednosta: prof. dr. S. Velgoc'.

Stanko, V.I.

Chem
⁷
~~Preparation of cyclopentene from cyclopentadiene. A.F. - 8~~
~~Plate and V. I. Stanko (N. D. Zelinskii Inst. Org. Chem.,~~
~~Acad. Sci. U.S.S.R., Moscow). Invest. Akad. Nauk~~
~~S.S.S.R., Otdel. Khim. Nauk 1956, 1148-50. Cyclopenta-~~
~~diene over Raney Ni (prepd. from 1:1 Ni-Al by removing~~
~~50% of the Al) under 70-80 atm. H₂ (reaction is exothermic~~
~~and rapid; at lower pressures the exothermic effect is slight)~~
~~after taking up 1 mole. H₂ gives about 70% cyclopentane,~~
~~b₁₀₀ 44°, n_D²⁰ 1.4222, d₄ 0.7715. The reactor should be~~
~~chilled rapidly, the catalyst filtered off and washed with~~
~~EtOH, and the combined filtrate fractionated. The opera-~~
~~tion requires but 1.5-2 hrs. for an 80-g. run with 15 g.~~
~~catalyst.~~
~~G. M. Kosolapoff~~

AUTHOR
TITLE

PERIODICAL

ABSTRACT

STANKO, V.I.

PLATE A.F., STANKO V.I.

On the interaction of the Iotsich reagents with Δ^2 -chloro-cyclopentene. (O vzaimodeystvii reaktiva Iotsicha s Δ^2 -tsiklopentenilkhloridom.- Russian)

Doklady Akademii Nauk SSSR 1957, Vol 113, Nr 3, pp 616-619 (U.S.S.R.)

Received: 6/1957

Reviewed: 8/1957

The synthesis of some cyclopentane-hydrocarbons was carried out. On the occasion of the investigation of the interaction of Δ^2 -chlorocyclopentane and the reagents of Iotsich it became evident that on this occasion a di- Δ^2 -cyclopentene-acetylene (I) is formed in a quantity of 20-36 % on which occasion, however, an approximatively equal quantity (28-35 %) of Δ^2 -cyclopenteneacetylene is produced. Attempts to change the conditions on the occasion of the reaction did not lead to an increase of the yield of cyclopenteneacetylene. The constant quantity of the two possible reaction products is independent of the quantity of the used reagentia and the important yield of Δ^2 -cyclopenteneacetylene can be speciously explained by the different velocities of the interaction between the Δ^2 -chlorocyclopentene and the two possible magnesia-organic compounds. The di- Δ^2 -cyclopentene-

CARD 1/2

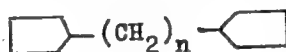
20-2-29/60

AUTHORS: Plate, A. F. , Stanko, V. I.

TITLE: On the Interaction of Tetramethylene- and Pentamethylenedi-
magnesium Bromides With Δ^2 -Cyclopentenyl Chloride
(O vzaimodeystvii tetrametilen- i pentametilendimagniybromidov
c Δ^2 -tsiklopentenilkhloridom)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 2, pp. 339-342
(USSR)

ABSTRACT: In the context of further development of the investigations
by the authors of the paper under review on production of
hydrocarbons with 25-term cycles in accordance with a general
formula



for the purpose of arriving at 1,4-dicyclopentylbutane and
1,5-dicyclopentylpentane, the authors investigated the inter-
action of Δ^2 -cyclopentenyl chloride with dimagnesium deri-
vatives of the 1,4-dibrombutane and 1,5-dibrompentane. It
was seen that the main products of the reaction of Δ^2 -cyclo-

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20-2-29/60

On the Interaction of Tetramethylene- and Pentamethylenedimagnesium Bromides
With Δ^2 -Cyclopentenyl Chloride

pentenyl chloride with tetramethylene- and pentamethylene-
magnesium chloride form the expected 1,4-di-(Δ^2 -cyclopentenyl)-
-butane (47-51 %) and correspondingly 1,5-di-(Δ^2 -cyclopentenyl)-
-pentane (30 %). At the same time, however, hydrocarbons were
formed with a cycle of only 5 terms. This was demonstrated
at catalytic hydration by the production of n-butylcyclopene-
tane and n-amylcyclopentane. It was shown at the qualitative
determination of the hydrogen which at the hydrogenation of
the unsaturated hydrocarbon attaches itself to it with a
cycle of only 5 terms, that there are two double bonds in
the molecule. Their position can be determined from the
structure of the initial substances. The formation of ole-
fines in the conditions of the Grignard's reaction is charac-
teristic for secondary and tertiary haloidalkyls. However,
this lateral reaction was also observed in the case of the
primary haloidalkyls. This double bond probably is in the
 α -position. In this context, an isomerization with displace-
ment of the double bond is hardly possible, because it is
known that the interaction of alkalimagnesiumhalogenides re-
presents one of the most reliable methods for α -olefine
production without admixture of isomers with a double bond in

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20-2-29/60

On the Interaction of Tetramethylene- and Pentamethylenedimagnesium Bromides
With Δ^2 -Cyclopentenyl Chloride

a different position. Thus it is possible to attribute to the obtained hydrocarbons with a single 5-term cycle the structure of the 1-(Δ^2 -cyclopentenyl)-butene-3 and 1-(Δ^2 -cyclopentenyl)-pentene-4, respectively. The present paper also contains structural schemes. The previously unknown 1,4-dicyclopentylbutane and 1,5-dicyclopentylpentane are obtained by catalytic hydrogenation of the appropriate Δ^2 -cyclopentenyl compounds. The experimental part of the paper under review describes in detail the production methods together with constants and yields. There are 10 references, 3 of which are Soviet.

ASSOCIATION: Institute of Organic Chemistry imeni N. D. Zelinskiy, AS USSR
(Institut organicheskoy khimii imeni N. D. Zelinskogo Akademii nauk SSSR)

PRESENTED: February 28, 1956, B. A. Kazanskiy, Member of the Academy

SUBMITTED: December 27, 1956

AVAILABLE: Library of Congress

Card 3/3

STANKO, V. I. Cand Chem Sci -- (diss) "Synthesis and properties of dicyclopentylalkanes." Mos, 1958. 13 pp (Acad Sci USSR. Inst of Organic Chemistry in N. D. Zelinskiy), 120 copies (KL, 14-58, 110)

SOV/62-58-12-11/22

5(3)

AUTHORS:

Plate, A. F., Stanko, V. I.

TITLE:

Synthesis of Dicyclopentyl Methane and 1,3-Dicyclopentyl Propane on the Basis of Cyclopentadiene (Polucheniye ditsiklopentilmetana i 1,3-ditsiklopentilpropana na osnove tsiklopentadiyena)

PERIODICAL:

Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 12, pp 1472-1475 (USSR)

ABSTRACT:

α,ω -dicyclopentyl alkanes are insufficiently investigated and they have been hardly described at all in publications. α,ω -dicyclohexyl alkanes are much better investigated. To investigate the physical properties as well as the spectra of the Raman scattering of these hydrocarbons, the authors synthesized the first members of the α,ω -dicyclopentyl alkane series (Refs 2 and 3). Along with the hydrocarbons mentioned in this paper, hydrocarbons with two five-membered nuclei of the common

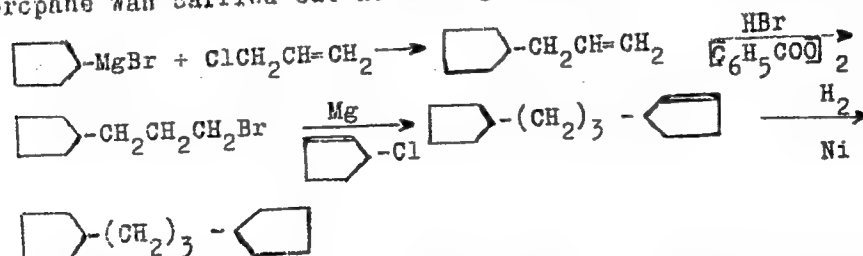
formula $\square-(CH_2)_n-\square$ were obtained, where n is equal to from 0 to 5. In the synthesis of dicyclopentyl methane the authors proceeded from cyclopentadiene, on the assumption

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Synthesis of Dicyclopentyl Methane and 1,3-Dicyclopentyl Propane on the Basis of Cyclopentadiene

that no isomerization of the cycles could then take place. In fact, the constants of the obtained dicyclopentyl methane differed somewhat from those mentioned in publications. The synthesis of the earlier not described 1,3-dicyclopentyl propane was carried out according to the following scheme:



In the stage of the interaction between 1-bromo-3-cyclopentyl propane and magnesium and Δ^2 -cyclopentenyl chloride the formation of 3-(Δ^2 -cyclopentenyl)-1-cyclopentyl propane as well as of allyl cyclopentane were observed. A similar case was described already earlier (Ref 3). In the table the physical properties of the obtained α,ω -dicyclopentyl alkanes are mentioned.

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SOV/62-58-12-11/22

Synthesis of Dicyclopentyl Methane and 1,3-Dicyclopentyl Propane on the Basis of Cyclopentadiene

There are 1 table and 8 references, 6 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii imeni N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy, Academy of Sciences, USSR)

SUBMITTED: April 3, 1957

Card 3/3

ACC NR: AP7003330 SOURCE CODE: UR/0079/66/036/012/2219/2219

AUTHOR: Stanko, V. I.; Klimova, A. I.

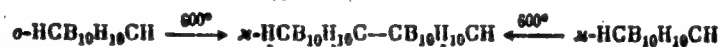
ORG: none

TITLE: m-Dibarenyl

SOURCE: Zhurnal obshchey khimii, v. 36, no. 12, 1966, 2219

TOPIC TAGS: carborane, isomerization, carborane condensation, boron compound

ABSTRACT: Heating of o-carborane to 580—600C for 12 hr resulted not only in the isomerization of o-carborane to m-carborane, but also in the simultaneous condensation of m-carborane nuclei to form "m-dibarenyl" (mp, 216—218C). In addition to m-dibarenyl, products with 3, 4 or more barenyl nuclei were formed. m-Dibarenyl was also formed on heating m-carborane under similar conditions.



The apparatus, experimental procedure, and IR spectra of m-dibarenyl

Card 1/2

UDC: 546.271

ACC NR: AP7003330

are briefly described in the source.

[W. A. 77]
[B0]

SUB CODE: 07/ SUBM DATE: 01Aug66/

Card 2/2

5(3)

AUTHORS:

Stanko, V. I., Plate, A. F.

SOV/62-59-1-19/38

TITLE:

Synthesis of 1,1-Dicyclopentyl Ethane and 1,2-Dicyclopentyl Propane on the Basis of Cyclopentadiene (Sintez 1,1-ditsiklopentiltana i 1,2-ditsiklopentilpropana na osnove tsiklopentadiyena)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 1, pp 115 - 120 (USSR)

ABSTRACT:

Hydrocarbons of the dicyclopentylalkylmethane series and dicyclopentylalkyl ethane series have not yet been described in publications. In the present paper the authors began investigation on the basis of cyclopentadiene as they had already done earlier. The interaction of Δ^2 -cyclopentenyl chloride with ethyl acetate in the presence of magnesium was investigated. It was shown that the condensation of two molecules of Δ^2 -cyclopentenyl chloride is the basic direction of the reaction whereby di-(Δ^2 -cyclopentenyl) is synthesized. The yield of di-(Δ^2 -cyclopentenyl) methyl carbinol does not exceed 5%. 1,1-dicyclopentyl ethane was obtained in two ways for the first time: 1) by hydrogenation of 1-(Δ^2 -cyclo-

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Synthesis of 1,1-Dicyclopentyl Ethane and 1,2-Dicyclopentyl Propane on the Basis of Cyclopentadiene

SOV/62-59-1-19/38

pentenyl)-1-cyclopentyl ethane which was obtained by the reaction of Grignard from 1-bromo-1-cyclopentyl ethane and Δ^2 -cyclopentenyl chloride; 2) by hydrogenation of cyclopentyl-methyl fulvene which was synthesized from cyclopentadiene and methyl cyclopentyl ketone. In addition, the following compounds were obtained which so far have not been described in publications: di-(Δ^2 -cyclopentenyl)-methyl carbinol, 1-cyclopentyl ethanol-1, 1-bromo-1-cyclopentyl ethane, 1-(Δ^2 -cyclopentenyl)-1-cyclopentyl ethane, 2-bromo-1-cyclopropane, 1-(Δ^2 -cyclopentenyl)-2-cyclopentyl propane. There are 14 references, 7 of which are Soviet.

ASSOCIATION:

Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: April 3, 1957

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5 (3), 24 (7)

AUTHORS:

Markova, S. V., Bazhulin, P. A.,
Stanko, V. I., Plate, A. F.

SOV/62-59-7-18/38

TITLE:

Optical Method of Investigation of Hydrocarbons (Opticheskiy metod issledovaniya uglevodorodov). Communication 11. Raman Spectra of Dicyclopentyl and Dicyclopentyl Alkanes (Soobshcheniye 11. Spektry kombinatsionnogo rasseyaniya ditsiklopentila i ditsiklopentilalkanov)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 7, pp 1280 - 1287 (USSR)

ABSTRACT:

The present paper is a continuation of a series of papers (Refs 1-10) on the investigation of the Raman spectra of hydrocarbons carried out in the optical laboratory of the Fizicheskiy institut im. P. N. Lebedeva, AN SSSR (Institute of Physics imeni P. N. Lebedev of the AS USSR) and in the laboratory of the Komissiya po spektroskopii (Committee of Spectroscopy), together with the institute mentioned in the Association. The results of the investigation of the Raman dispersion of 8 hydrocarbons (dicyclopentyl and its alkanes) are given. The following parameters of the Raman lines were determined: the frequency $\Delta\nu$, the intensity in the line maximum

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(I_0), the integral intensity (I_∞) the line width δ and the depolarization degree (ρ). The frequencies and the intensity maxima were measured by means of the spectrograph ISP-51. The integral intensity was determined by means of a diffraction grating constructed by Sushchinskiy (Ref 12). All results of the integral intensity were expressed on a scale with the integral intensity of the line of cyclohexane of 802 cm^{-1} equal 500. The spectra of the investigated substances consisted of weak and diffuse lines. The mean error of the integral intensity amounted to $\sim 10\%$. The depolarization degree was measured by means of a Zeiss spectrograph. A special illumination system was constructed for the surveys. The results of the measurements of frequency, intensity, and depolarization degree are given in table 1. The purity of the investigated substances was examined before the survey. The determined frequencies, the production, the physical and chemical properties of the investigated substances: dicyclopentyl-methane, 1,2-dicyclopentylethane, 1,3-dicyclopentylpropane, 1,4-dicyclopentylbutane,

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1,5-dicyclopentylpentane, 1,1-dicyclopentylethane, and 1,2-dicyclopentylpropane are given in brief. The following conclusions were drawn from the results (only the spectrum of the dicyclopentyl is known in the publications): the most intensive

line at $\sim 895 \text{ cm}^{-1}$ found in all spectra was ascribed to the fully symmetrical oscillation of the five-membered ring as its characteristic. Table 2 gives the values of the integral intensity of this line of all 8 substances investigated, the mean value is at 340. The integral intensity of a compound with one ring only amounts to only the half. The intensities for the different low frequencies are represented in table 3. Lines are found here which correspond to the oscillations of the CH_2 -group. The intensity of these lines increases with the increase of the chain between the two five-membered rings. The most intensive

line at 600 cm^{-1} is reduced with the increase of the distance between the rings. The lines of the frequencies of $200 - 600 \text{ cm}^{-1}$ were characteristic of the individual hydrocarbons. There are 3 tables and 26 references, 21 of which are Soviet.

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ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR
(Institute of Physics imeni P. N. Lebedev of the Academy of
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imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: November 1, 1957

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PLATE, A.F.; STANKO, V.I.

Hydrogenation of di-(Δ^2 -cyclopentenyl)acetylene of Pd Pt, and Ni catalysts. Izv.AN SSSR Otd.khim.nauk no.8:1481-1489 Ag '60. (MIRA 15:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Acetylene) (Hydrogenation) (Catalysts)

BAZHANT, V. [Bažant, V.], laureat Gosudarstvennoy premii; KHVALOVSKI, V.
[Chvalovský, V.], laureat Gosudarstvennoy premii; RATOUSKI, I.
[Rathouský, J.], laureat Gosudarstvennoy premii; VAYNSHETSYN, Yu.I.
[translator]; STANKO, Y.I. [translator]; PAKHOMOV, V.I., red.;
ZAZUL'SKAYA, V.F., tekhn.red.

[Silicones; organosilicon compounds, their production, properties,
and uses] Silikony; kremniorganicheskie soedinenia, ikh polu-
chenie, svoistva i primeneniye. Moskva, Gos.nauchno-tekhn.izd-vo
khim.lit-ry, 1960. 709 p. Translated from the Czech.
(Silicon organic compounds) (MIRA 14:4)

S/062/60/000/008/024/033/XX
B013/B055

AUTHORS: Plate, A. F. and Stankov, V. I.
TITLE: Hydrogenation of Di-(Δ^2 -cyclopentenyl)-acetylene on Pd-,
Pt-, and Ni Catalysts
PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,
1960, No. 8, pp. 1481-1489


TEXT: The present paper treats the hydrogenation of a compound containing a double bond in each of two five-membered rings and a triple bond between the rings, i.e., di-(Δ^2 -cyclopentenyl)-acetylene (I) in the presence of various catalysts. Partially selective addition of hydrogen would mainly yield a hydrocarbon with three isolated double bonds. The study was undertaken to clarify the mechanism of its hydrogenation. Di-(Δ^2 -cyclopentenyl)-acetylene was prepared by reaction of the Iotsich complex with Δ^2 -cyclopentenyl chloride (Ref. 18). Hydrogenation was carried out at room temperature and atmospheric pressure, a fresh catalyst being used for each experiment. It was found that over Pd, the triple bond in di-(Δ^2 -cyclopentenyl)-acetylene is selectively hydrogenated to a double bond. On

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acetylene on Pd-, Pt-, and Ni Catalysts

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Pt, di-(Δ^2 -cyclopentenyl)-acetylene adds three moles of H_2 , forming 1,2-dicyclopentyl ethylene, the double bonds in the five-membered rings being preferentially hydrogenated. Owing to the isomerizing effect of the Pd catalyst, the reaction product obtained after the addition of three H_2 molecules to di-(Δ^2 -cyclopentenyl)-acetylene over Pd is a mixture of unsaturated hydrocarbons. This mixture consists primarily of 1,2-dicyclopentyl ethylene and 1-(Δ^1 -cyclopentenyl)-cyclopentyl ethane. The preferential addition of hydrogen to the double bonds in the five-membered ring as compared to double bonds in open chains was demonstrated by partial (50%) hydrogenation of an equimolar mixture of 3-methyl 1-cyclopentene and 2-octene over Pt black. In the presence of Raney Ni, hydrogen is at first absorbed at a constant rate. After absorption of two H_2 molecules, the hydrogenation rate gradually decreases. Fractional distillation of the catalyzate showed that the mixture contained none of the components in major quantities. The mixture had a wide boiling range and was not further examined. This investigation allows the conclusion that in a molecule, the presence of double bonds in the five-membered rings adjacent to the triple bond does not prevent the selective hydrogenation of this triple bond over Pd. In this case, too, the molecule is probably adsorbed



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acetylene on Pd-, Pt-, and Ni Catalysts

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on the catalyst mainly at the triple bond. Yu. S. Zal'kind, S. V. Lebedev, M. S. Platonov, B. A. Kazanskiy, M. Yu. Lukina, A. I. Malyshev, I. V. Gostunskaya, N. B. Dobroserdova, V. N. Ipat'yev, N. D. Zelinskiy are mentioned. The authors thank V. T. Aleksanyan and Kh. Ye. Sterin of the laboratoriya Komissii po spektroskopii AN SSSR (Laboratory of the Commission for Spectroscopy AS USSR) and M. M. Sushchinskiy of the Fizicheskii institut im. P. N. Lebedeva AN SSSR (Physics Institute imeni P. N. Lebedev AS USSR) for carrying out the spectroscopic analyses of catalyzates. There are 1 figure, 1 table, and 23 references: 14 Soviet, 4 French, 3 US, 1 British, and 1 German.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR
(Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: March 7, 1959

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S/051/60/008/04/010/032
E201/E691

AUTHORS: Markova, S.V., Bashulin, P.A., Plate, A.F. and Stanko, V.I.

TITLE: Investigation of the Infrared Absorption Spectra of Dicyclic Hydrocarbons

PERIODICAL: Optika i spektroskopiya, 1960, Vol 8, Nr 4, pp 492-497 (USSR)

ABSTRACT: The authors investigated the infrared absorption spectra of five-member and six-member dicyclic hydrocarbons in the region from 3 to 24 μ . The majority of the five-member compounds was first prepared in the Laboratory of Catalytic Synthesis of the Institute of Organic Chemistry imeni N.D. Zelinskiy (Ref 1). The results reported in the present paper supplement those on the Raman spectra of the same compounds reported by Markova et al. (Ref 2) and Peregudov et al. (Ref 3). All measurements were made with a double-beam spectrometer, consisting of a standard monochromator ³IKS-11 and an automatic device developed in the authors' laboratory (Ref 4). In the 3 μ region the compounds were dissolved in CCl₄ (1% concentration) before measurements. In other regions of the spectrum pure compounds were employed. The effects of scattered and reflected light were allowed for by placing a cell with the appropriate compound in the

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calibration beam as well as in the working beam. Table 1 lists the infrared frequencies of all the compounds investigated. The errors in determinations of the frequencies varied between 1 and 2 cm^{-1} depending on the region of the spectrum. Table 1 lists also the estimated absorption intensities using a five-degree scale: very strong, strong, medium, weak, very weak. Fig 1 shows by way of illustration the spectra of dicyclohexyl between 700 and 1500 cm^{-1} and Fig 3 shows the absorption spectra of six hydrocarbons in the ~3000 cm^{-1} region. Tables 2-5 list the measured values of the absorption coefficients of certain selected bands. Table 6 compares the Raman and infrared spectra of some of the compounds studied. For some bands the authors investigated dependence of the integral absorption coefficient and the absorption coefficient at the band maxima on the number of absorbing groups in a molecule. Fig 2 shows that the integral absorption coefficient rises linearly with the number of absorbing CH_2 groups. A similar linear dependence ("additivity") was found for

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the absorption coefficient at the band maxima. There are 3 figures, ✓
6 tables and 17 references, 9 of which are Soviet, 4 English,
2 German, 1 mixed (English and German) and 1 from Spectrochimica Acta.

SUBMITTED: July 16, 1959

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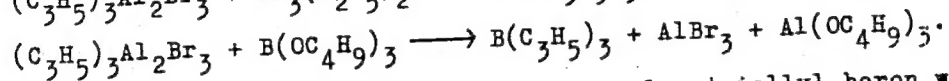
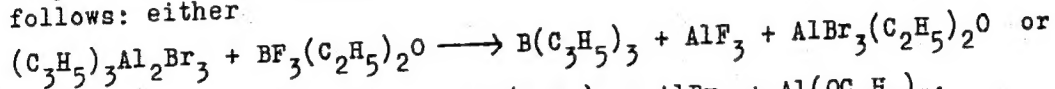
11.1250

AUTHORS: Zakharkin, L. I. and Stanko, V. I.

TITLE: Simple Synthesis of Triallyl Boron¹ and Some of Its Conversions

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 10, pp. 1896 - 1898

TEXT: A simple method of preparing triallyl boron¹ is described, which differs from the syntheses of A. V. Topchiyev et al. (Refs. 2-4), and B. M. Mikhaylov and F. B. Tutorskaya (Ref.5), respectively, insofar as allyl aluminum sesquibromide is used, and the reactions proceed as follows: either



In contrast to the data of Topchiyev et al., triallyl boron was found to

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react readily with bromine, also at temperatures down to -35°C , with the C-B bond being ruptured, bromine adding to the double bond, and 1,2,3-tri-bromopropane forming as the principal product. A disproportionation under the formation of the dibutyl ester of allyl boric acid takes place when triallyl boron is heated with tributyl borate. With mercury chloride, triallyl boron forms apparently allyl mercury chloride in an aqueous solution; it was, however, not possible to isolate this compound. In the reaction of triallyl boron with thallium trichloride in an aqueous solution, the latter is quantitatively converted into thallium monochloride. The individual steps of preparation are described. There are 9 references: 4 Soviet, 2 German, 1 US, 1 Japanese, and 1 French. ✓

ASSOCIATION: Institut elementoorganicheskikh soedineniy Akademii nauk SSSR (Institute of Elemental-organic Compounds of the Academy of Sciences USSR)

SUBMITTED: March 30, 1960

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